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PATENT & TRADEMARK OFFICE
IAP79

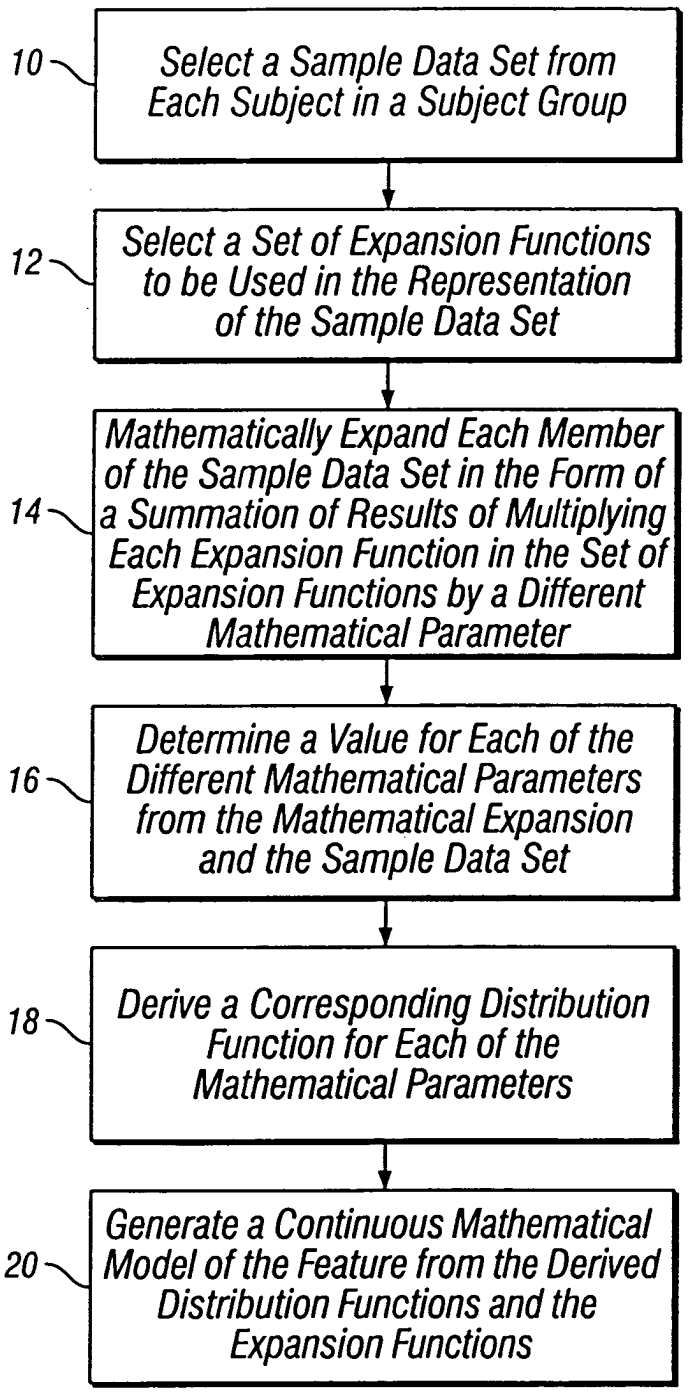

FIG. 1

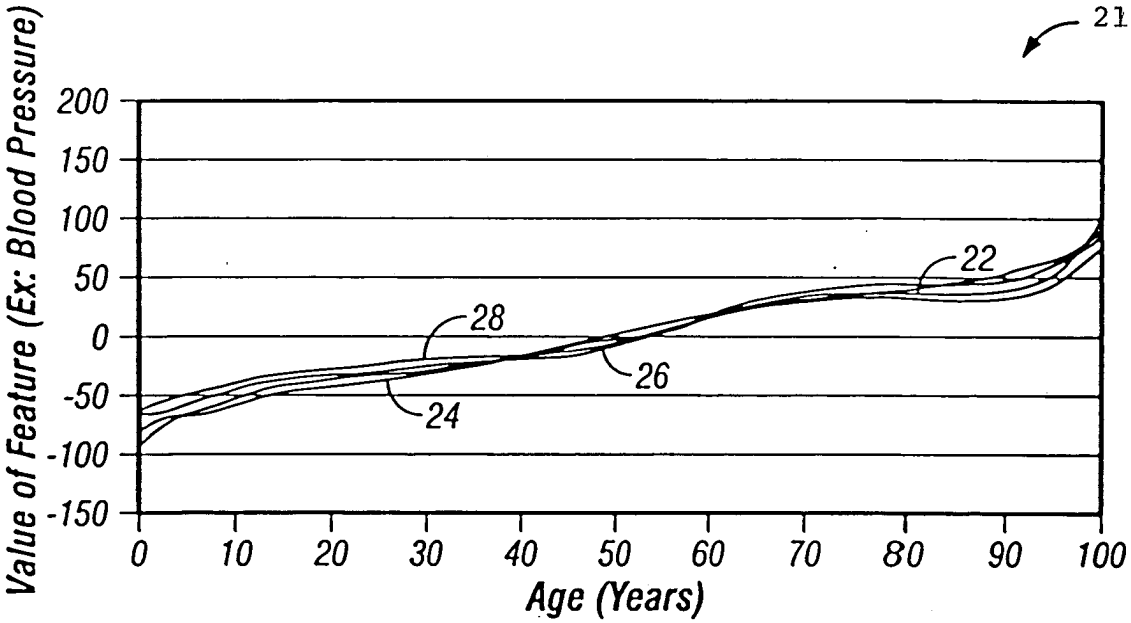
21
Value of Feature (Ex: Blood Pressure)
200
150
100
50
0
-50
-100
-150
0
10
20
30
40
50
60
70
80
90
100
Age (Years)
22
28
26
24

FIG. 2

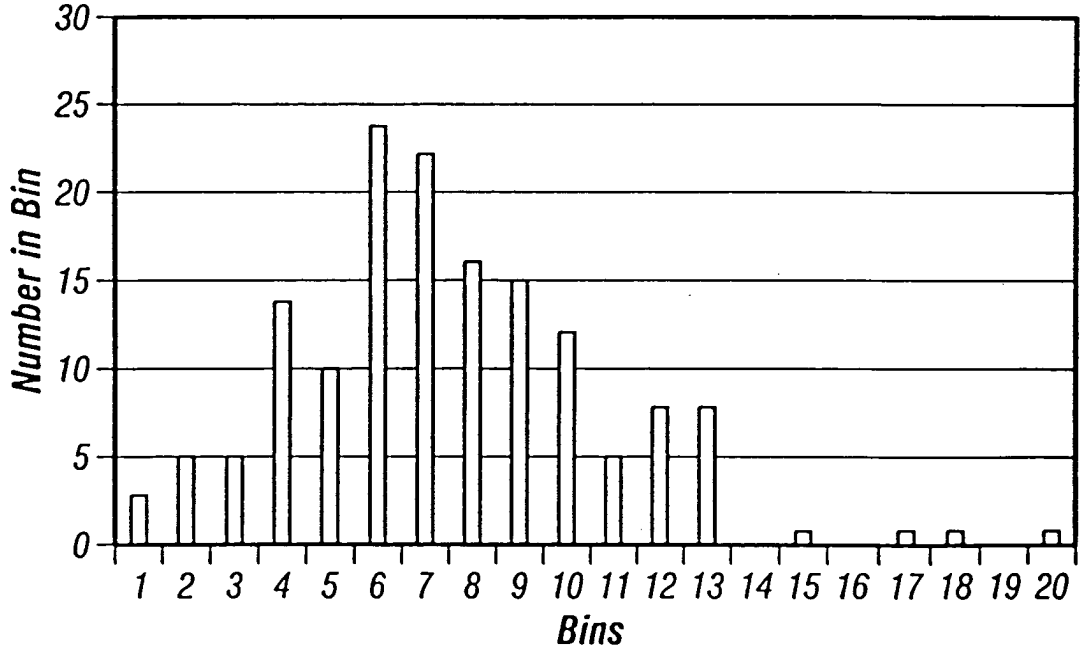
Number in Bin
30
25
20
15
10
5
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bins

FIG. 3

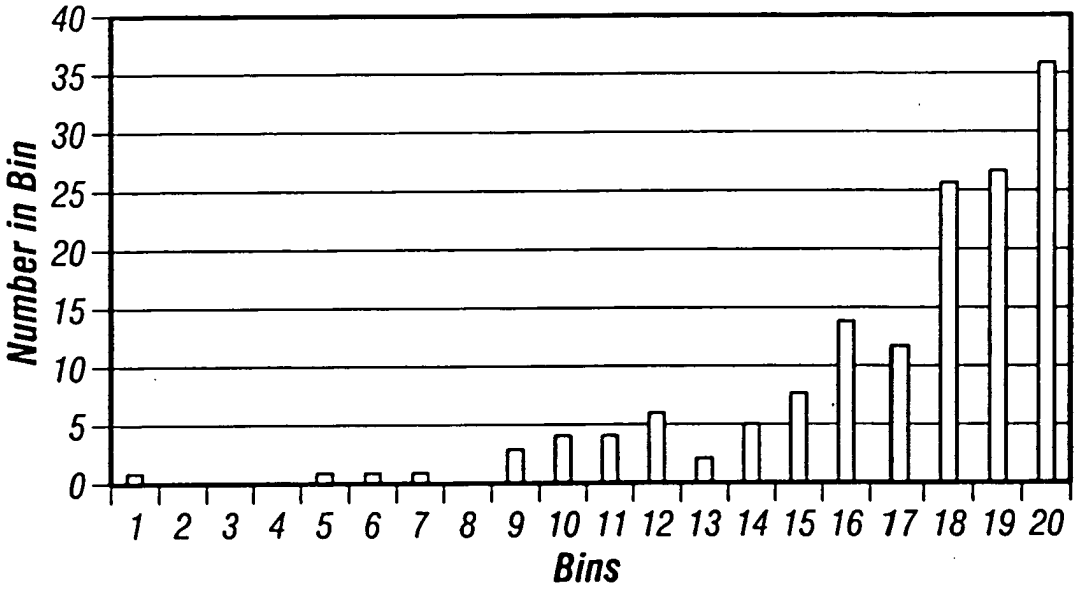
Number in Bin
0
5
10
15
20
25
30
35
40
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bins

FIG. 4

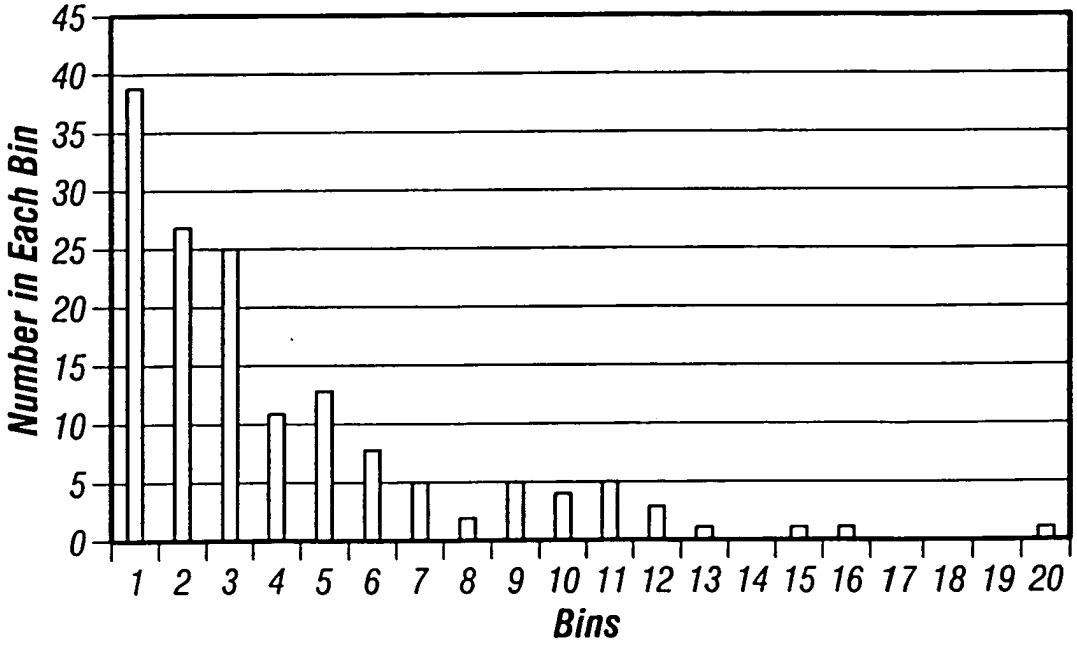
Number in Each Bin
0
5
10
15
20
25
30
35
40
45
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bins

FIG. 5

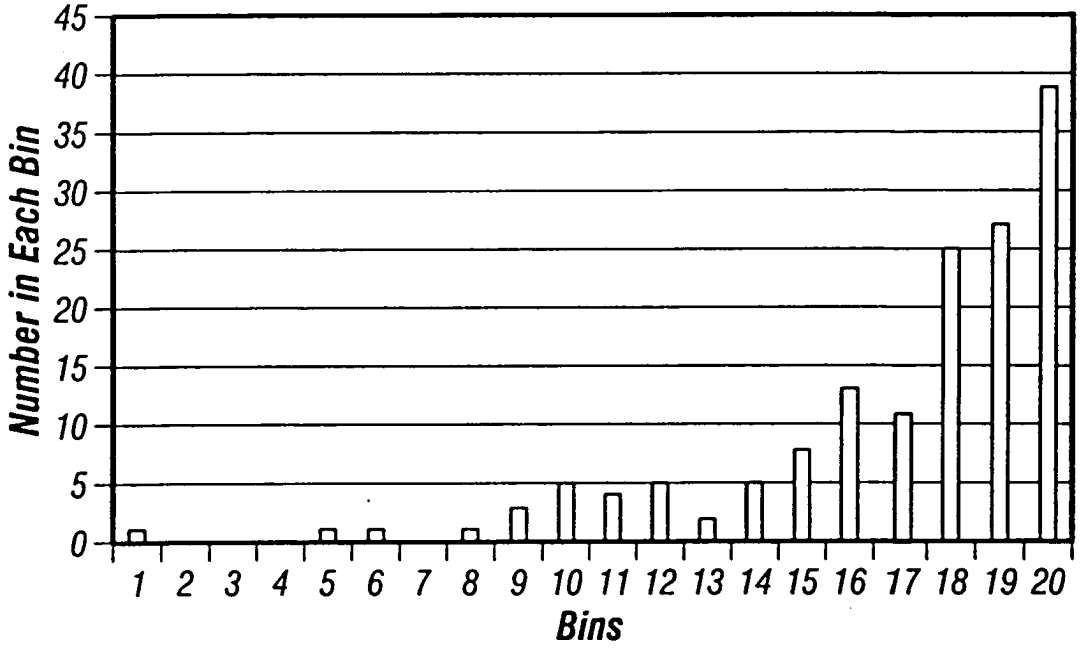
Number in Each Bin
0
5
10
15
20
25
30
35
40
45
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bins

FIG. 6

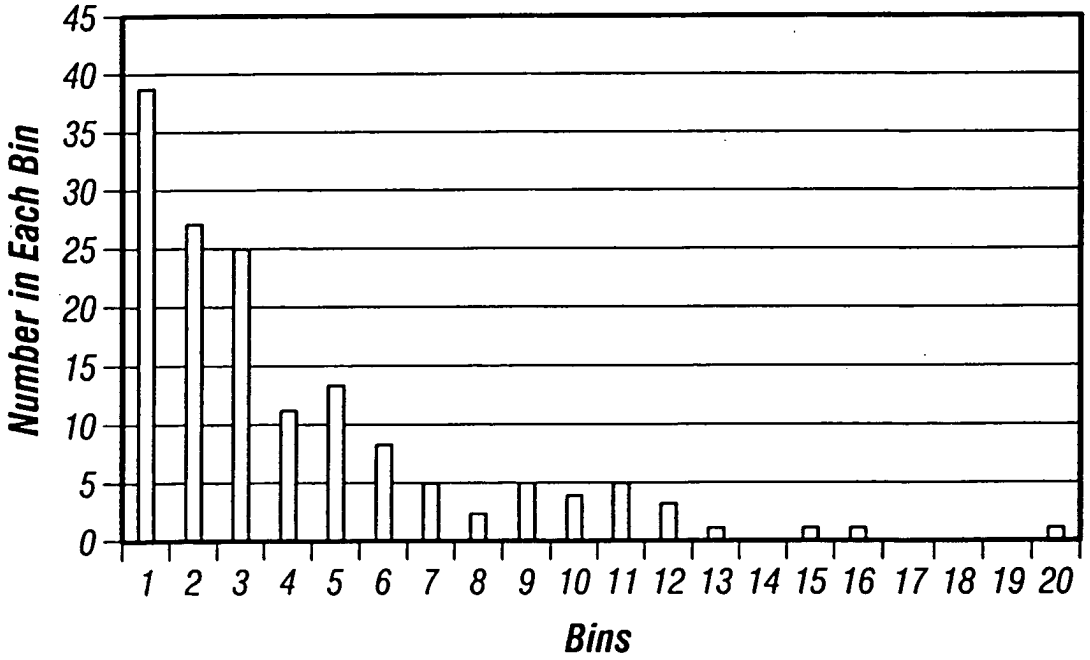
Number in Each Bin
0
5
10
15
20
25
30
35
40
45
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bins

FIG. 7

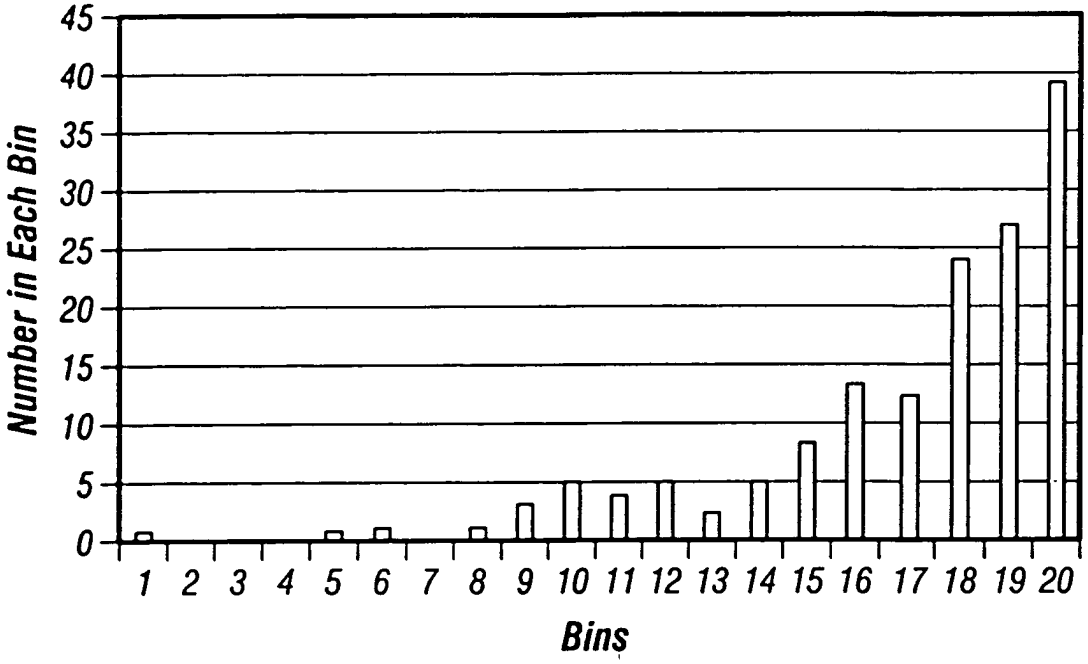
45
40
35
30
25
20
15
10
5
0
Number in Each Bin
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bins

FIG. 8

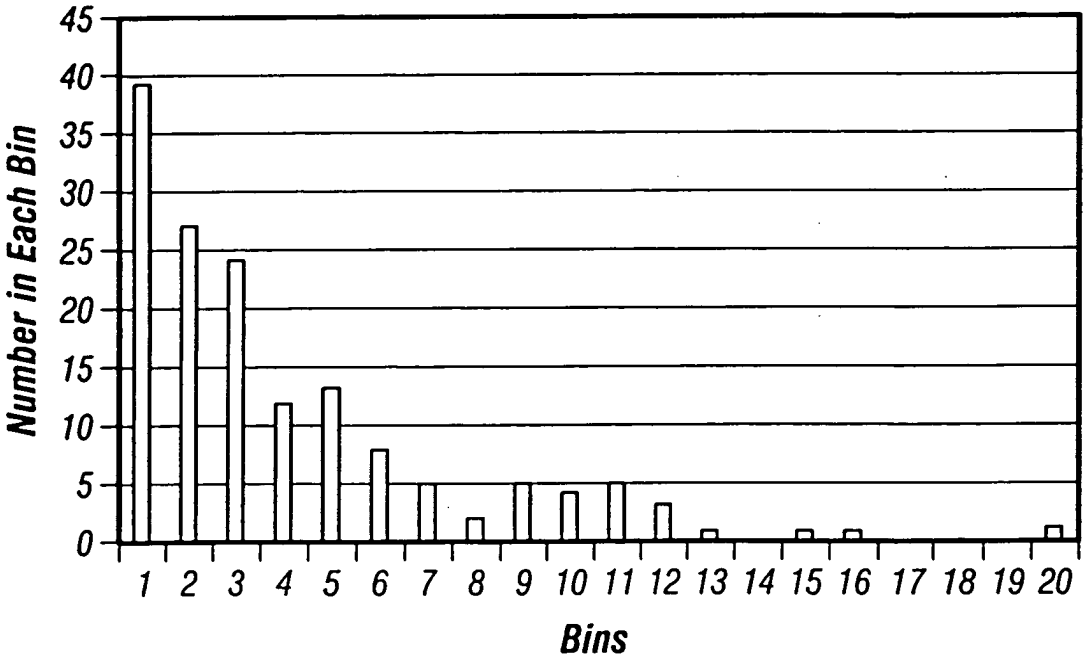
45
40
35
30
25
20
15
10
5
0
Number in Each Bin
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bins

FIG. 9A

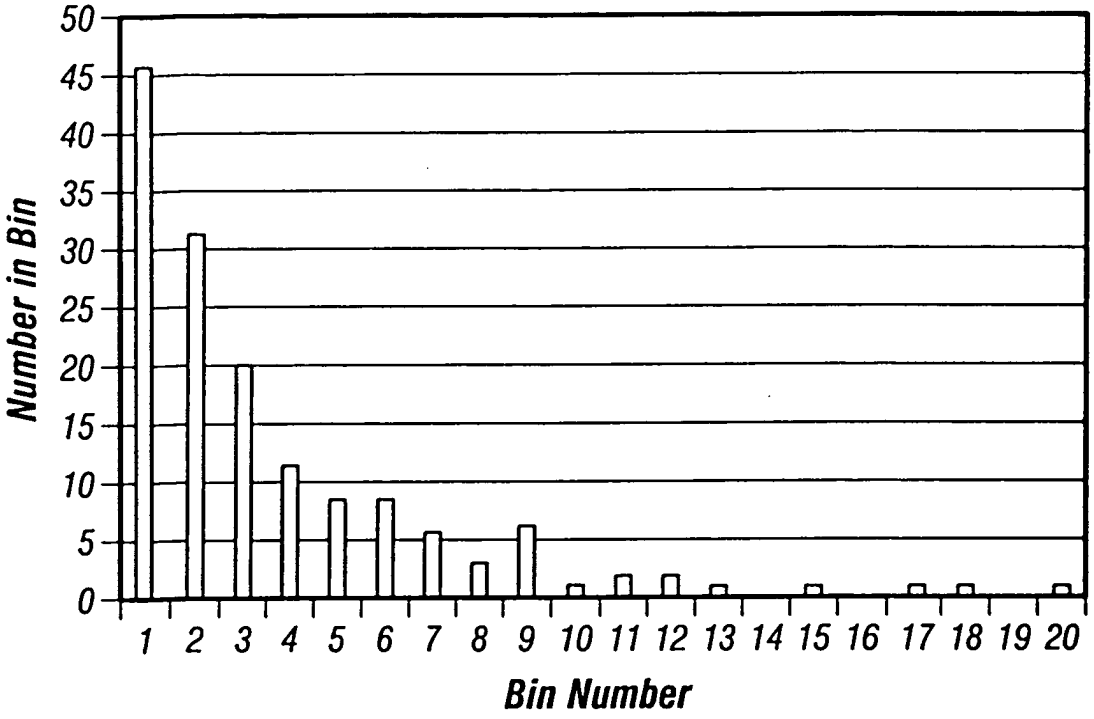
Number in Bin
0
5
10
15
20
25
30
35
40
45
50
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bin Number

FIG. 9B

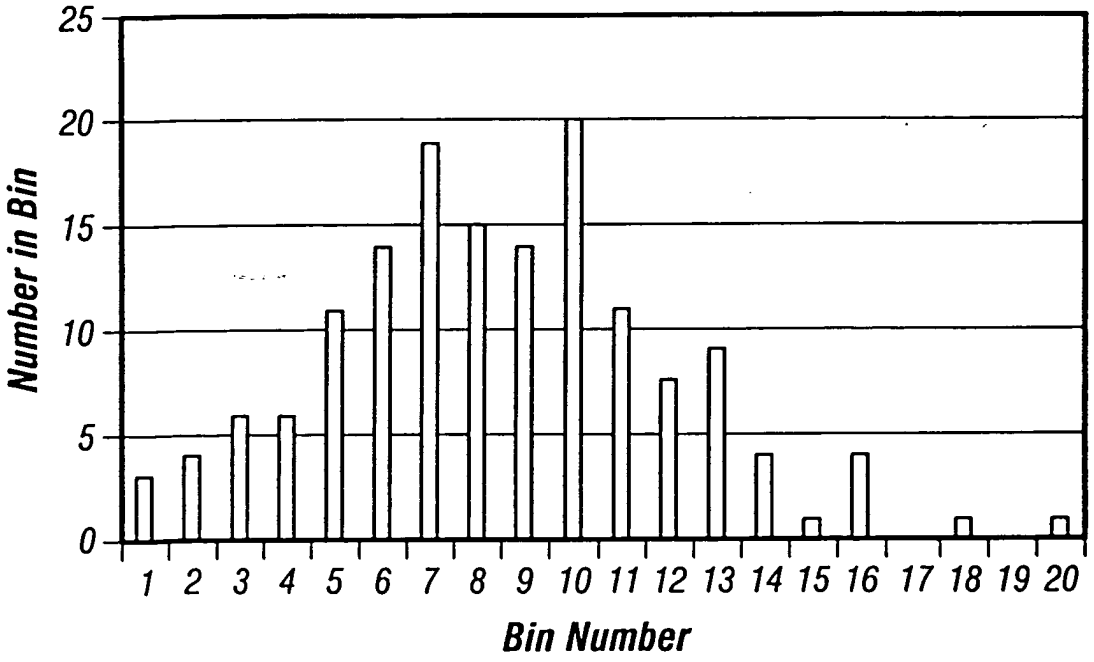
Number in Bin
0
5
10
15
20
25
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Bin Number

FIG. 9C

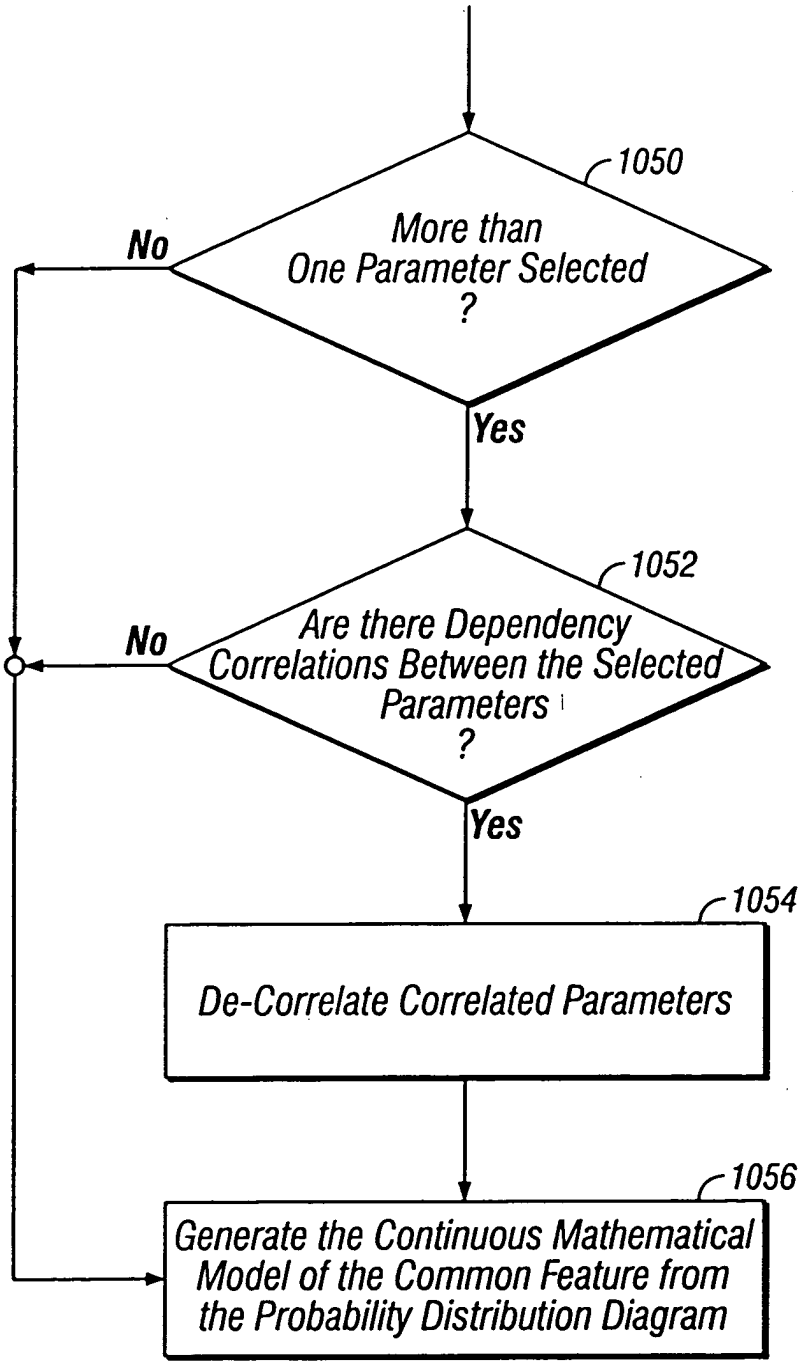
1050
More than One Parameter Selected ?
No
Yes
1052
Are there Dependency Correlations Between the Selected Parameters ?
No
Yes
1054
De-Correlate Correlated Parameters
1056
Generate the Continuous Mathematical Model of the Common Feature from the Probability Distribution Diagram

FIG. 10

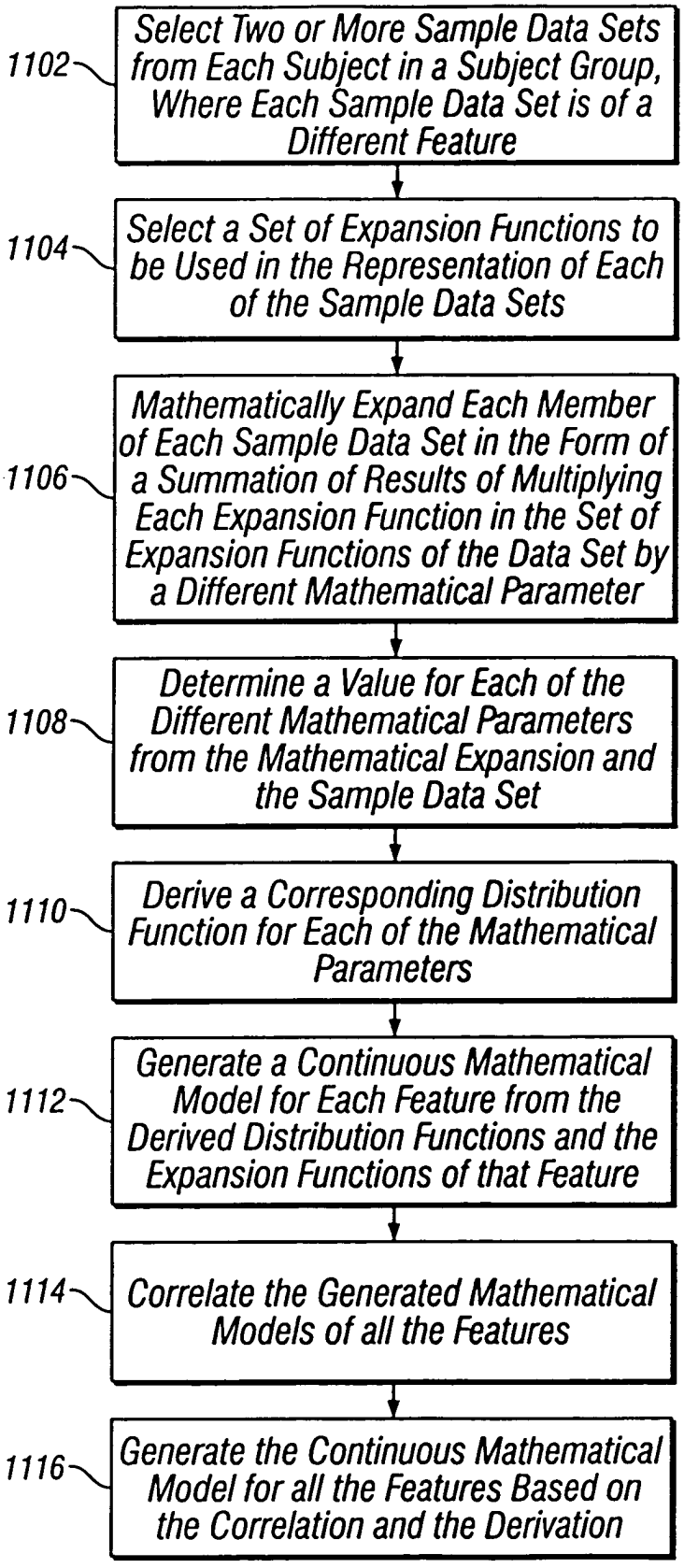
1102
Select Two or More Sample Data Sets from Each Subject in a Subject Group, Where Each Sample Data Set is of a Different Feature
1104
Select a Set of Expansion Functions to be Used in the Representation of Each of the Sample Data Sets
1106
Mathematically Expand Each Member of Each Sample Data Set in the Form of a Summation of Results of Multiplying Each Expansion Function in the Set of Expansion Functions of the Data Set by a Different Mathematical Parameter
1108
Determine a Value for Each of the Different Mathematical Parameters from the Mathematical Expansion and the Sample Data Set
1110
Derive a Corresponding Distribution Function for Each of the Mathematical Parameters
1112
Generate a Continuous Mathematical Model for Each Feature from the Derived Distribution Functions and the Expansion Functions of that Feature
1114
Correlate the Generated Mathematical Models of all the Features
1116
Generate the Continuous Mathematical Model for all the Features Based on the Correlation and the Derivation

FIG. 11